

AMENDMENTS TO THE CLAIMS

Claims 1-54 (Canceled).

55. (Currently Amended) A memory cell, comprising:

a substrate;

a transistor including a gate on said substrate and a source/drain region in said substrate disposed adjacent to said gate;

a capacitor comprising an electrode having a non-oxide layer comprising platinum-rhodium material and a non-oxide layer comprising platinum material formed on top and in contact with the platinum-rhodium layer, wherein the electrode has a lateral surface aligned with the source/drain region; and

a conductive plug providing electrical contact between the source/drain region and the lateral surface of the electrode.

56. (Canceled).

57. (Original) The memory cell of claim 55, wherein the platinum-rhodium layer has a thickness within the range of about 150 to about 300 Angstroms.

58. (Original) The memory cell of claim 55, wherein the platinum layer has a thickness within the range of about 50 to about 150 Angstroms.

Claims 59-62 (Canceled).

63. (Withdrawn) An integrated circuit, comprising:

an electrical circuit containing a ferroelectric or high dielectric constant capacitor, wherein the capacitor has a lower electrode having a

platinum-rhodium layer and a platinum layer on top of the platinum-rhodium layer.

64. (Withdrawn) The circuit of claim 63, wherein the platinum-rhodium layer comprises an alloy of approximately 3 to approximately 40 percent rhodium and approximately 60 to approximately 97 percent platinum.

65. (Withdrawn) The circuit of claim 63, wherein the platinum-rhodium layer has a thickness within the range of about 150 to about 300 Angstroms.

66. (Withdrawn) The circuit of claim 63, wherein the platinum layer has a thickness within the range of about 50 to about 150 Angstroms.

67. (Withdrawn) The circuit of claim 63, wherein the lower electrode further comprises a titanium layer beneath the platinum-rhodium layer.

68. (Withdrawn) The circuit of claim 67, wherein the titanium layer has a thickness within the range of about 60 to about 100 Angstroms.

69. (Withdrawn) The circuit of claim 67, wherein the lower electrode further comprises a titanium nitride layer beneath the titanium layer.

70. (Withdrawn) The circuit of claim 69, wherein the titanium nitride layer has a thickness within the range of about 100 to about 150 Angstroms.

71. (Withdrawn) A computer system, comprising:

a processor; and

a memory circuit connected to the processor, the memory circuit containing at least one memory cell having a ferroelectric or high dielectric constant capacitor, wherein the capacitor has a lower electrode having a platinum-rhodium layer and a platinum layer on top of the platinum-rhodium layer.

Claims 72-123 (Canceled).

124. (Previously Submitted) A memory cell, comprising:

a substrate;

a transistor including a gate on said substrate and a source/drain region in said substrate disposed adjacent to said gate;

a capacitor comprising an electrode having a titanium layer beneath a platinum-rhodium layer and a platinum layer on top of the platinum-rhodium layer, wherein a titanium nitride layer is provided beneath the titanium layer; and

a conductive plug providing electrical contact between the source/drain region and the lateral surface of the electrode.

125. (Currently Amended) A memory cell, comprising:

a substrate;

a transistor including a gate on said substrate and a source/drain region in said substrate disposed adjacent to said gate;

a capacitor ~~comprising~~ consisting essentially of an electrode ~~having with~~ with a titanium nitride layer provided beneath a platinum-rhodium layer and a platinum layer formed on top of the platinum-rhodium layer; and

a conductive plug providing electrical contact between the source/drain region and the lateral surface of the electrode.

126. (Currently Amended) A memory cell, comprising:

a substrate;

a transistor including a gate on said substrate and a source/drain region in said substrate disposed adjacent to said gate;

a capacitor comprising an electrode having a layer ~~comprising~~ consisting essentially of platinum-rhodium material and at least one layer comprising platinum material formed on top of the platinum-rhodium layer, said platinum-rhodium layer comprises approximately more than 20 percent rhodium, wherein the electrode has a lateral surface aligned with the source/drain region; and

a conductive plug providing electrical contact between the source/drain region and the lateral surface of the electrode.